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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,502	09/30/2003	Takashi Fujimori	03500.017615	1667

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EXAMINER	
CHEN, SOPHIA S	
ART UNIT	**PAPER NUMBER**
2852	

DATE MAILED: 12/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/673,502	FUJIMORI ET AL.	
	Examiner	Art Unit	
	Sophia S. Chen	2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-13 and 15-20* is/are rejected.

7)☒ Claim(s) *4 and 14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 September 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/12/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 11/12/03 has been considered by the Examiner. The document number 62-087909 is not initialed by the Examiner because it appears that the content of this document is not consistent with the description in the specification (page 5, lines 5-8) of the current application.

Drawings

2. Figures 11 and 12 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: B, P, 16a through 16d, 60, 61 (Figure 1), 903 (Figure 6), 505, 506, 507 (Figure 8), 1102, 1103 (Figure 9), 2008, 2009, 2013 (Figure 10), 104, 106, 109 (Figure 11), 205, 206, and 207 (Figure 12). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office

action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because of the following informalities:

a. Reference character "A" has been used to designate "a primary transferring plane" (page 10, line 27 and Figure 1), "an accumulated heat amount foreseeing function portion" (page 19, lines 13-14 and Figure 2), and "a rotation direction" (Figure 10).

b. Reference character "B" has been used to designate both "a rotation direction" (Figure 1) and "a rotation time setting portion" (page 19, line 17, etc. and Figure 2).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not

accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to because of the following informalities:

a. Figure 5, step 803, "1001" is not a table, see Figure 7, step 1001.

b. Figure 8, "503" (below PRINTABLE STATE) should be "504".

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

6. The abstract of the disclosure is objected to because of the inclusion of legal phraseology, such as "means" (page 40, lines 8 and 12). Correction is required. See MPEP § 608.01(b).

7. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

8. The disclosure is objected to because of the following informalities:

a. Page 5, lines 5-8, Japanese Patent Application Laid-Open No. 62-87909 does not disclose the method of determining the idle rotation time.

b. Page 14, line 16, "41A" and "41B" should be "401" and "402", respectively.

c. Page 22, lines 13-15, "--- reference number 904 indicates the control temperature when print ---" is not consistent with Figure 6.

d. Page 31, line 11, "3" should be "2003".

Appropriate correction is required.

Claim Objections

9. Claims 1-20 are objected to because of the following informalities:

a. Claim 1, line 15, "continuedly" should be "continuously".

b. Claim 5, last line, "the rotary member" should be "the at least one of the rotary members".

c. Claim 6, line 3, "the rotary member" should be "the at least one of the rotary members".

d. Claim 7, lines 4-5, "the rotary member" should be "the at least one of the rotary members".

e. Claim 11, line 15, "continuedly" should be "continuously".

f. Claim 15, lines 3-4, "the heat generating member" should be "the rotatable rotary member".

g. Claim 16, line 3, "said rotary member" should be either "said rotatable rotary member" or "said at least one of the rotary members".

h. Claim 17, lines 4-5, "said rotary member" should be either "said rotatable rotary member" or "said at least one of the rotary members".

Appropriate correction is required.

Claim Rejections – 35 U.S.C. §102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1, 2, and 5-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakakibara et al. (US Pat. Pub. No. 2002/0061200 A1).

Sakakibara et al. discloses a fixing apparatus 9 for fixing a toner image on a recording material P by heat, having: a pair of rotary members 92, 93 having a heat

generating member 91, and rotatable in contact with each other (paragraph [0085] and Figure 7); electric power supply control means (CPU) 98 for controlling electric power supply to the heat generating member 91so that a temperature of at least one of the rotary members 92 may become a set temperature T2 (paragraphs [0092], [0100], and [0101]); rotation time setting means (CPU) 98 for setting a time (one second) for which the electric power supply control 98 is effected after a shift from a warming-up operation (to T1) to a fixing capable state (to T2) and the pair of rotary members 92, 93 are rotated continuously from rotation during the warming-up operation, on the basis of a time (8 seconds) of the warming-up operation (paragraphs [0100] through [0102]); and a warm-up time (8 seconds) is a time from the start of the electric power supply to the heat generating member 91 until shift is made to the fixing capable state (paragraphs [0100] through [0102] and Figure 5).

Sakakibara et al. further discloses the electric power supply control means 98 controls the electric power supply to the heat generating member 91 on the basis of an output of a temperature detecting member 96 for detecting the temperature of the rotary member 92 (paragraph [0092] and Figure 4); when during the warming-up operation, the temperature of the rotary member 92 reaches a preset temperature T1, an image forming capable state is brought about (paragraph [0100]); the electric power supply control means 98 controls electric power supply during rotation by rotation control means so that the temperature of the rotary member 92 may become a set temperature T2 during a fixing capable state (paragraphs [0100] and [0101]); the pair of rotary members 92, 93 comprise a fixing rotary member (a fixing film) 92, and a pressure

rotary member (a pressurizing roller) 93 brought into pressure contact with the fixing rotary member 92 to thereby form a nip part N for nipping and conveying the recording material P (paragraph [0093]); and the pressure rotary member 93 has an elastic layer 93b (paragraph [0092]).

12. Claims 1 and 5-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Toyomura (JP 05-088582 A).

Toyomura discloses a fixing apparatus for fixing a toner image 112 on a recording material 113 by heat, having: a pair of rotary members 101, 102 having a heat generating member 103, and rotatable in contact with each other (Figures 4 and 5); electric power supply control means (CPU) 1 for controlling electric power supply 8 to the heat generating member 103 so that a temperature of at least one of the rotary members 101 may become a set temperature Tst (Figures 1 and 6); and rotation time setting means (CPU) 1 for setting a time (one second) for which the electric power supply control 1 is effected after a shift from a warming-up operation (from X1 to X2) to a fixing capable state (X4) and the pair of rotary members 101, 102 are rotated continuously from rotation during the warming-up operation, on the basis of a time of the warming-up operation (paragraphs [0027] through [0032] and Figure 1).

Toyomura further discloses the electric power supply control means 1 controls the electric power supply 8 to the heat generating member 103 on the basis of an output of a temperature detecting member 4 for detecting the temperature of the rotary member 101 (Figure 6); when during the warming-up operation, the temperature of the rotary member 101 reaches a preset temperature Tst (at point X2), an image forming

capable state is brought about (Figure 1, at point X3); the electric power supply control means 1 controls electric power supply 8 during rotation by rotation control means so that the temperature of the rotary member 101 may become a set temperature Taw during a fixing capable state (Figure 1); the pair of rotary members 101, 102 comprise a fixing rotary member 101, and a pressure rotary member 102 brought into pressure contact with the fixing rotary member 101 to thereby form a nip part (from point a to point b; Figure 5) for nipping and conveying the recording material 113 (Figure 5); the pressure rotary member 102 has an elastic layer (paragraph [0006]); and the fixing rotary member 101 has an elastic layer (paragraph [0006]).

Claim Rejections – 35 U.S.C. §103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

15. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakakibara et al. in view of Hayashi (US Pat. No. 6,349,187 B2).

Sakakibara et al., as discussed above, differs from the instant claimed invention in not disclosing a warm-up time is a time from the closing of a power switch until shift is made to the fixing capable state.

Hayashi discloses a start of a power supply (a switch 26) is to close a power switch 26 (column 4, lines 32-35).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the switch as taught by Hayashi to the power supply of Sakakibara et al. because of the same functionality for turning ON/OFF state of the power supply.

16. Claims 11, 12, and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakakibara et al. in view of Suzuki et al. (US Pat. No. 6,263,172 B1).

Sakakibara et al. discloses a fixing apparatus 9 for fixing a toner image on a recording material P by heat, having: a pair of rotary members 92, 93 having a heat generating member 91, and rotatable in contact with each other (paragraph [0085] and Figure 7); electric power supply control means (CPU) 98 for controlling electric power supply to the heat generating member 91so that a temperature of at least one of the rotary members 92 may become a set temperature T2 (paragraphs [0092], [0100], and [0101]); rotation time setting means (CPU) 98 for setting a time (one second) for which the electric power supply control 98 is effected after a shift from a warming-up operation (to T1) to a fixing capable state (to T2) and the pair of rotary members 92, 93 are

rotated continuously from rotation during the warming-up operation, on the basis of a time (8 seconds) of the warming-up operation (paragraphs [0100] through [0102]); and a warm-up time (8 seconds) is a time from the start of the electric power supply to the heat generating member 91 until shift is made to the fixing capable state (paragraphs [0100] through [0102] and Figure 5).

Sakakibara et al. further discloses the electric power supply control means 98 controls the electric power supply to the heat generating member 91 on the basis of an output of a temperature detecting member 96 for detecting the temperature of the rotary member 92 (paragraph [0092] and Figure 4); when during the warming-up operation, the temperature of the rotary member 92 reaches a preset temperature T1, an image forming capable state is brought about (paragraph [0100]); the electric power supply control means 98 controls electric power supply during rotation by rotation control means so that the temperature of the rotary member 92 may become a set temperature T2 during a fixing capable state (paragraphs [0100] and [0101]); the pair of rotary members 92, 93 comprise a fixing rotary member (a fixing film) 92, and a pressure rotary member (a pressurizing roller) 93 brought into pressure contact with the fixing rotary member 92 to thereby form a nip part N for nipping and conveying the recording material P (paragraph [0093]); and the pressure rotary member 93 has an elastic layer 93b (paragraph [0092]).

Sakakibara et al. differs from the instant claimed invention in not disclosing a coil for producing a magnetic field.

Suzuki et al. discloses a fixing apparatus 100 comprising a fixing rotary member 10; a pressure rotary member 30; and a coil (a heat generating member) 18 for producing a magnetic field (column 7, lines 6-13 and 36-41).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to the coil and associated mechanism as taught by Suzuki et al. in place of the heat generating member of Sakakibara et al. because of the same functionality for heating the fixing rotary member.

17. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakakibara et al. in view of Suzuki et al. as applied to claim 11 above, and further in view of Hayashi.

Sakakibara et al. in view of Suzuki et al., as discussed above, differs from the instant claimed invention in not disclosing a warm-up time is a time from the closing of a power switch until shift is made to the fixing capable state.

Hayashi discloses a start of a power supply (a switch 26) is to close a power switch 26 (column 4, lines 32-35).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the switch as taught by Hayashi to the power supply of Sakakibara et al. because of the same functionality for turning ON/OFF state of the power supply.

18. Claims 11 and 5-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toyomura in view of Suzuki et al.

Toyomura discloses a fixing apparatus for fixing a toner image 112 on a recording material 113 by heat, having: a pair of rotary members 101, 102 having a heat generating member 103, and rotatable in contact with each other (Figures 4 and 5); electric power supply control means (CPU) 1 for controlling electric power supply 8 to the heat generating member 103 so that a temperature of at least one of the rotary members 101 may become a set temperature Tst (Figures 1 and 6); and rotation time setting means (CPU) 1 for setting a time (one second) for which the electric power supply control 1 is effected after a shift from a warming-up operation (from X1 to X2) to a fixing capable state (X4) and the pair of rotary members 101, 102 are rotated continuously from rotation during the warming-up operation, on the basis of a time of the warming-up operation (paragraphs [0027] through [0032] and Figure 1).

Toyomura further discloses the electric power supply control means 1 controls the electric power supply 8 to the heat generating member 103 on the basis of an output of a temperature detecting member 4 for detecting the temperature of the rotary member 101 (Figure 6); when during the warming-up operation, the temperature of the rotary member 101 reaches a preset temperature Tst (at point X2), an image forming capable state is brought about (Figure 1, at point X3); the electric power supply control means 1 controls electric power supply 8 during rotation by rotation control means so that the temperature of the rotary member 101 may become a set temperature Taw during a fixing capable state (Figure 1); the pair of rotary members 101, 102 comprise a fixing rotary member 101, and a pressure rotary member 102 brought into pressure contact with the fixing rotary member 101 to thereby form a nip part (from point a to

point b; Figure 5) for nipping and conveying the recording material 113 (Figure 5); the pressure rotary member 102 has an elastic layer (paragraph [0006]); and the fixing rotary member has an elastic layer (paragraph [0006]).

Toyomura differs from the instant claimed invention in not disclosing a coil for producing a magnetic field.

Suzuki et al. discloses a fixing apparatus 100 comprising a fixing rotary member 10; a pressure rotary member 30; and a coil (a heat generating member) 18 for producing a magnetic field (column 7, lines 6-13 and 36-41).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to the coil and associated mechanism as taught by Suzuki et al. in place of the heat generating member of Toyomura because of the same functionality for heating the fixing rotary member.

Allowable Subject Matter

19. Claims 4 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other Prior Art

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Toyohara et al. (US Pat. No. 5,987,275) discloses a fixing apparatus comprising a fixing roller; a pressure roller; a heat generating member; and rotation time setting means.

Arakawa (US Pat. No. 6,101,346) discloses a fixing apparatus comprising a fixing roller; a pressure roller; a heat generating member; and a power supply for supplying electric power to a heater.

Sakakibara et al. (US Pat. No. 6,516,166 B2) discloses a fixing apparatus comprising a fixing roller; a pressure roller; a heat generating member; a power supply control means; and rotation time setting means.

Yasui et al. (US Pat. Pub. No. US 2004/0042825 A1) discloses a fixing apparatus comprising a fixing roller; a pressure roller; a heat generating member; and a power supply for supplying electric power to a heater.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sophia S. Chen whose telephone number is (703) 308-7617. The examiner can normally be reached on M-F (7:00-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on (703) 308-1373. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sophia S. Chen
Primary Examiner
Art Unit 2852

Ssc
December 6, 2004